RESPONSE UNDER 37 CFR 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2444
Docket No.: 1341.1187

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Tetsumei TSURUOKA et al.

Serial No. 10/781,792 Group Art Unit: 2444

Confirmation No. 6392

Filed: February 20, 2004 Examiner: Thomas W. Richardson

For: APPARATUS FOR AND METHOD OF CONTROLLING PACKET, AND COMPUTER PROGRAM PRODUCT

AMENDMENT SUBMITTED WITH A REQUEST FOR CONTINUED EXAMINATION

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Attention: Box AF

Sir:

This is in response to the Final Office Action mailed March 25, 2010, and having a period for response set to expire on June 25, 2010. A petition for a one-month extension of time, together with the requisite fee for same, is submitted herewith, thereby extending the period for response to July 25, 2010. This Amendment is being filed concurrently with a Request for Continued Examination.

The following amendments and remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

IN THE CLAIMS:

1. (CURRENTLY AMENDED) A packet control system comprising:

a packet forwarder that transfers a packet received from a network interface to another network interface; and

a packet control device that routes the packet using a routing process, wherein the packet forwarder includes:

a received packet transfer unit that transmits to the packet control device a routing information packet received from the network interface, and wherein the packet control device includes:

a virtual interface that has address information associated with the network interface of the packet forwarder[[;]],

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network,

a registering unit that registers the path decided by the deciding unit to a routing table,

a transmitted packet reception unit that receives the routing information packet, that associates the routing information packet with the virtual interface, and that delivers the routing information packet to the routing process[[;]], and

a transmitted packet transfer unit that receives the routing information packet sent by the routing process, and that transmits the routing information packet to the packet forwarder including the network interface that is associated with an address of the virtual interface, wherein

the packet control device connects to the packet forwarder through a the network.

2. (Currently Amended) A packet control device which constructs a routing table for a packet forwarder controlled by the packet control device, using a routing process running on the packet control device, the packet control device comprising:

a virtual interface that has address information associated with the network interface of the packet forwarder;

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a

network;

a registering unit that registers the path decided by the deciding unit to a routing table;

a transmitted packet reception unit that receives the routing information packet transmitted from the packet forwarder, that associates the routing information packet with the virtual interface corresponding to an incoming network interface of the packet forwarder, and that transmits the routing information packet to the routing process; and

a transmitted packet transfer unit that receives the routing information packet sent by the routing process, and that transmits the routing information packet to the packet forwarder including the network interface that is associated with an address of the virtual interface, wherein

the packet control device connects to the packet forwarder through a network.

3. (ORIGINAL) The packet control device according to claim 2, further comprising:

a routing table transfer unit that acquires a routing table updated by the routing process, and that transmits the routing table to the packet forwarder.

4. (Currently Amended) A packet control device which constructs a routing table for a packet forwarder controlled by the packet control device which determines an outgoing network interface of the packet received at an incoming network interface of the packet forwarder, the packet control device comprising:

a plurality of network interfaces; ~~and~~

a plurality of virtual interfaces each having address information that is associated with one of the network interfaces of the packet forwarder, the network interfaces of the packet control device and the virtual interfaces being divided into a plurality of groups;

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

a registering unit that registers the path decided by the deciding unit to be a routing table; and;

a transmitting packet unit that transmits the packet to the packet forwarder including the network interface that is associated with and address of a virtual interface,

wherein

the packet control device routes the packet using a routing process associated

with each of the groups considering interfaces belongs to the groups to create a dedicated routing table for each, the each of the groups corresponds to a separate device, and wherein the packet control device connects to the packet forwarder through a network.

5. (ORIGINAL) The packet control device according to claim 4, wherein the virtual interfaces are grouped for each packet forwarder, and the packet control device maintains routing tables using a routing process associated with each of the virtual interfaces grouped.

6. (Currently Amended) A packet forwarder which forwards a packet from its network interface to its other network interface according to its routing table that makes a destination address of a packet associate with a next transfer destination, comprising:

a received packet transfer unit that transmits a routing information packet received at the network interface to a packet control device, the packet control device including a virtual interface having address information associated with the network interface, the packet control device maintaining the routing table of the packet forwarder using a routing process that generates the routing table based on routing information on the packet received at the network interface, and the packet control device connecting to the packet forwarder through a network; ~~and~~

a routing information receiving unit that receives the routing information packet delivered to the routing process by the packet control device from the routing process, the routing information packet being associated with the virtual interface;

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

a registering unit that registers the path decided by the deciding unit to a routing table; and

a transmitting packet unit that transmits the packet to the packet forwarder including the network interface that is associated with an address of the virtual interface.

7. (PREVIOUSLY PRESENTED) The packet forwarder according to claim 6, further comprising a routing table setting unit that receives the routing table from the packet control device, and that sets the routing table to the packet forwarder.

8. (Currently Amended) A method of maintaining a routing table using a routing process, the method comprising:

receiving a routing information packet which is received by a packet forwarder;

associating the routing information packet with a virtual interface that has address information associated with a network interface of the packet forwarder;

delivering the routing information packet to the routing process of a packet control device;

receiving the routing information packet sent by the routing process; ~~and~~

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to routing table; and

transmitting the routing information packet from the packet control device to the packet forwarder including the network interface that is associated with an address of the virtual interface for transmitting from its network interface, wherein

the packet control device connects to the packet forwarder through a network.

9. (ORIGINAL) The method according to claim 8, further comprising:

acquiring a routing table updated by the routing process; and

transmitting the routing table to the packet forwarder.

10. (Currently Amended) A method of maintaining a routing table in a system that includes a packet forwarder and a packet control device, the packet forwarder including a plurality of network interfaces, the packet control device including a plurality of network interfaces and a plurality of virtual interfaces, each of the virtual interfaces having address information that is associated with one of the network interfaces of the packet forwarder, the method comprising:

dividing the network interfaces of the packet control device and the virtual interfaces into a plurality of groups; ~~and~~

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table; and

transmitting the packet to the packet forwarder including the network interface that is

associated with an address of the virtual interface;

maintaining a the routing table of each for the groups using a routing process associated with each of the groups, wherein

the packet control device connects to the packet forwarder through athe network.

11. (ORIGINAL) The method according to claim 10, wherein the virtual interfaces are grouped for each packet forwarder, further comprising maintaining a routing table of each packet forwarder using a routing process associated with each of the virtual interfaces grouped.

12. (Currently Amended) A method of maintaining a routing table of a packet forwarder, the method comprising:

receiving a routing information packet from a network interface of a packet forwarder;

transferring the routing information packet to a packet control device, the packet control device including a virtual interface having address information associated with the network interface, and the packet control device connecting to the packet forwarder through a network; and

receiving the routing information packet from the packet control dev ice, the routing information packet being associated with the virtual interface;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table; and

transmitting the packet to the packet forwarder including the network interface that is associated with an address of the virtual interface, wherein

the routing table makes a destination address of a packet associate with a next transfer destination.

13. (PREVIOUSLY PRESENTED) The method according to claim 12, further comprising:

receiving the routing table from a packet control device; and

setting the routing table to the packet forwarder.

14. (CURRENTLY AMENDED) A computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium, comprising a

computer program for routing a packet using a routing process, including computer executable instructions which, when executed by the computer, cause the computer to perform:

receiving a routing information packet from a network interface of a packet forwarder;

transmitting the routing information packet to a packet control device;

receiving the routing information packet from the packet forwarder;

associating the routing information packet with a virtual interface that has address information associated with the network interface;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table;

transmitting the routing information packet to the routing process;

receiving the routing information packet transmitted from the routing process; and

transmitting the routing information packet to the packet forwarder including the network interface that is associated with an address of the virtual interface, wherein the packet control device connects to the packet forwarder through a network.

15. (PREVIOUSLY PRESENTED) The computer-readable storage according to claim 14, wherein the instructions further cause the computer to perform:

acquiring a routing table updated by the routing process; and

transmitting the routing table to the packet forwarder.

16. (CURRENTLY AMENDED) A computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium, comprising a computer program for maintaining a routing table, the packet forwarder including a plurality of network interfaces, the packet control device including a plurality of network interfaces and a plurality of virtual interfaces, each of the virtual interfaces having address information that is associated with one of the network interfaces of the packet forwarder, the computer program including computer executable instructions which, when executed by the computer, cause the computer to perform:

dividing the network interfaces of the packet control device and the virtual interfaces into a plurality of groups; ~~and~~

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet

control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table; and

transmitting the packet to the packet forwarder including the network interface that is associated with an address of the virtual interface;

maintaining ~~a~~ the routing table of each of the groups using a routing process associated with each of the groups, wherein

the packet control device connects to the packet forwarder through ~~a~~ the network.

17. (PREVIOUSLY PRESENTED) The computer-readable storage according to claim 16, wherein the virtual interfaces are grouped for each packet forwarder, and the instructions further cause the computer to perform maintaining a routing table of each packet forwarder using a routing process associated with each of the virtual interfaces grouped.

18. (CURRENTLY AMENDED) A computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium, comprising a computer program for maintaining a routing table of a packet forwarder, including computer executable instructions which, when executed by the computer, cause the computer to perform:

receiving a routing information packet from a network interface of the packet forwarder;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table; and

transmitting the packet to the packet forwarder including the network interface that is associated with an address of the virtual interface, wherein

the routing table makes a destination address of a packet associate with a next transfer destination.

19. (PREVIOUSLY PRESENTED) The computer-readable storage according to claim 18, wherein the instructions further cause the computer to perform:

receiving the routing table from a packet control device; and

setting the routing table to the packet forwarder.

20. (CURRENTLY AMENDED) A router control device comprising:

a virtual interface setting unit that creates and manages virtual interfaces on a router

control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

a registering unit that registers the path decided by the deciding unit to be a routing table;

a routing unit that generates a routing table for the forwarder based on routing information in routing information packets received at the network interface of the forwarder and transferred by the forwarder including the network interface that is associated with an address of the virtual interface to the router control device; and

a routing information storage unit that stores a routing table created and managed by the routing unit for packet forwarding between the virtual interfaces, wherein

the router control device connects to the forwarder through a network.

21. (ORIGINAL) The router control device according to claim 20, further comprising a tunnel transfer unit that transfers the routing information packet via a communication path that connects between the network interface and the virtual interface, wherein

the routing information storage unit stores the routing information in the routing information packet transferred by the tunnel transfer unit, and

the routing unit generates the routing table for the forwarder based on the routing information stored in the routing information storage unit.

22. (ORIGINAL) The router control device according to claim 20, further comprising:

a routing table transmission unit that acquires the routing table and that transmits the routing table to the forwarder, wherein

the routing unit generates the routing table for the forwarder based on the routing information stored in the routing information storage unit.

23. (CURRENTLY AMENDED) A router control system which includes a forwarder and a router control device, wherein

the router control device includes

a virtual interface setting unit that that creates and manages virtual interfaces on

a router control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

a tunnel transfer unit that transfers the routing information packet via a communication path that connects between the network interface and the virtual interface;

a deciding unit that decides on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

a routing information storage unit that stores routing information in the routing information packet transferred by the tunnel transfer unit;

a routing unit that generates the routing table for the forwarder based on the routing information stored in the routing information storage unit;

a registering unit that registers the path decided by the deciding unit to the routing table; and

the routing table transmission unit that acquires the routing table, and transmits the routing table to the forwarder, and

the forwarder forwards a packet from its network interface, being associated with an address of the virtual interface, to its other network interface according to its routing table, and includes a received packet transfer unit that transmits a routing information packet received at the network interface to the router control device that maintains the routing table of the forwarder using a routing process, wherein

the router control device connects to the forwarder through a network.

24. (CURRENTLY AMENDED) A method of maintaining a routing table, comprising:

creating and managing virtual interfaces on a router control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

generating a routing table for the forwarder based on routing information in routing information packets received at the network interface of the forwarder and transferred by the forwarder to the router control device; and

registering the path decided by the deciding to the routing table;

storing a routing table created and managed by the routing unit for packet forwarding between the virtual interfaces, wherein

the router control device connects to the forwarder including the network interface that is associated with an address of the virtual interface through ~~a~~ the network.

25. (ORIGINAL) The method according to claim 24, further comprising transferring the routing information packet via a communication path that connects between the network interface and the virtual interface, wherein

the storing includes storing the routing information in the routing information packet transferred by the tunnel transfer unit, and

the generating includes generating the routing table for the forwarder based on the routing information stored.

26. (ORIGINAL) The method according to claim 24, further comprising:

acquiring the routing table; and

transmitting the routing table to the forwarder, wherein

the generating includes generating the routing table for the forwarder based on the routing information stored.

27. (CURRENTLY AMENDED) A method of maintaining a routing table, comprising:

creating and managing virtual interfaces on a router control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

transferring the routing information packet by tunneling via a communication path that connects between the network interface and the virtual interface;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

storing routing information on the routing information in the routing information packet transferred;

generating a routing table for the forwarder based on the routing information stored;

acquiring the routing table;

registering the path decided by the deciding unit to the routing table;

transmitting the routing table to the forwarder;

forwarding a packet from a network interface of the forwarder to other network interface of the forwarder according to a routing table of the forwarder; and

transmitting a routing information packet received at the network interface of the forwarder, being associated with an address of the virtual interface, to the router control device that maintains the routing table of the forwarder using a routing process, wherein

the router control device connects to the forwarder through a network.

28. (CURRENTLY AMENDED) A computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium, comprising a computer program for maintaining a routing table, including computer executable instructions which, when executed by the computer, cause the computer to perform:

creating and managing virtual interfaces on a router control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

generating a routing table for the forwarder based on routing information in routing information packets received at the network interface of the forwarder and transferred by the forwarder to the router control device; and

registering the path decided by the deciding to the routing table;

storing a routing table created and managed by the routing unit for packet forwarding between the virtual interfaces, wherein

the router control device connects to the forwarder including the network interface that is associated with an address of the virtual interface through ~~a~~ the network.

29. (PREVIOUSLY PRESENTED) The computer-readable storage according to claim 28, wherein the instructions further cause the computer to perform transferring the routing information packet via a communication path that connects between the network interface and the virtual interface, wherein

the storing includes storing the routing information in the routing information packet transferred by the tunnel transfer unit, and

the generating includes generating the routing table for the forwarder based on the

routing information stored.

30. (PREVIOUSLY PRESENTED) The computer-readable storage according to claim 28, wherein the instructions further cause the computer to perform:

acquiring the routing table; and

transmitting the routing table to the forwarder, wherein

the generating includes generating the routing table for the forwarder based on the routing information stored.

31. (CURRENTLY AMENDED) A computer-readable storage for controlling a computer, the computer-readable storage excluding a communication medium, comprising a computer program for maintaining a routing table, including computer executable instructions which, when executed by the computer, cause the computer to perform:

creating and managing virtual interfaces on a router control device according to corresponding network interfaces of a forwarder, each of the virtual interfaces having address information that is associated with one of the network interfaces of the forwarder;

transferring a routing information packet by tunneling via a communication path that connects between the network interface and the virtual interface;

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

storing routing information on the routing information in the routing information packet transferred;

generating a routing table for the forwarder based on the routing information stored;

acquiring the routing table;

registering the path decided by the deciding unit to the routing table;

transmitting the routing table to the forwarder;

forwarding a packet from a network interface of the forwarder to another network interface of the forwarder according to a routing table of the forwarder; and

transmitting a routing information packet received at the network interface of the forwarder, being associated with an address of the virtual interface, to the router control device that maintains the routing table of the forwarder using a routing process, wherein

the router control device connects to the forwarder through a network.

32. (CURRENTLY AMENDED) A method performed by a processor of controlling a router, comprising:

connecting a router control device to a forwarder through a network;

creating and managing virtual interfaces, each having address information that is associated with one of a plurality of network interfaces of the forwarder, on the router control device; ~~and~~

deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding as a routing table; and

outputting the packet to the packet forwarder including the network interface that is associated with an address of the virtual interface.

REMARKS

Claims 1-2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 24, 27-28, and 31-32 are amended herein. No new matter is presented and entry and approval are requested.

Claims 1-32 are pending and under consideration. Reconsideration is requested.

Items 7-15: Rejection of claims 10, 11, 16, 17, 20, 24, 28, and 32 under 35 U.S.C. §103

The Examiner rejects claims 10, 11, 16, 17, 20, 24, 28, and 32 under 35 U.S.C. §103(a) as being unpatentable in view of US 2003/0204618, Foster et al ("Foster") and WO 99/14931, Dalton et al. ("Dalton"). (See, Office Action at pages 3-12).

The rejections are traversed. Applicants submit that the rejection is in error since all of the features recited by at least each of independent claims 10, 16, 20, 24, 28, and 32 are not taught by an *arguendo* combination of Foster and Dalton, as the Examiner asserts.

For example, independent claim 10 recites a method including "... deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network; registering the path by the deciding to a routing table." Each of independent claims 16, 20, 24, 28 and 32, as amended herein, have a similar recitation.

By contrast with claim 10, for example, Foster teaches:

> Each IFM may maintain a virtual identifier table for each of its ports that maps virtual identifiers to its destinations ports. When a frame is received at a source port, the IFM then uses the virtual identifier for that frame and the virtual identifier table for the source port to identify a destination port through which the frame is to be forwarded. ...The virtual identifier table for an IFM port may thus be divided in some embodiments into a domain address table and a virtual address table that respectively map domain addresses and virtual addresses to destination ports through which frames are to be forwarded.

(See, for example, paragraph [0029]).

That is, Foster merely teaches that a virtual identifier includes a domain address and a virtual address. That is, the virtual identifier identifies a path between devices.

Accordingly, Foster does not teach "deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network; registering the path by the deciding to a routing table," as recited by claim 10, for example.

By contrast with claim 10, for example, Dalton teaches

> The routing engine 110 processes the request and returns a response to an authentication server 602 at step 704. Routing engines 110 also accept detail reports from authentication servers 602. ...Once a routing engine 110 returns route information, the authentication server 602 adds authorization information to the response before returning it to the requesting device (gateway).

(See, for example, page 22, lines 1-23).

That is, Dalton merely teaches an authentication process between a client and a server. Therefore, the feature of claims 10, 16, 20, 24, 28 and 32 is a distinction over Dalton.

In view of the foregoing discussion, the rejections of claims 10, 16, 20, 24, 28 and 32 are improper.

Thus, an *arguendo* combination of Foster and Dalton does not teach all of the features recited by at least each of independent claims 10, 16, 20, 24, 28, and 32.

Thus, the rejection is in error and should be withdrawn and independent claims 10, 16, 20, 24, 28 and 32 allowed.

* * *

Dependent claims 11 and 17 inherit the patentable recitations of their respective base claims 10 and 16 and therefore, patentably distinguish over the cited art for at least the reason discussed above.

Thus, the rejection is in error and should be withdrawn and claims 11 and 17 allowed.

* * *

Items 16- 31: Rejection of claims 1-8, 12-14, 18, and 19 under 35 U.S.C. §103(a)

In items 16-31 of the Office Action, the Examiner rejects "claims 1-7, 12, 13, 18, and 19" under 35 U.S.C. §103(a) as being unpatentable over Foster, US 6 496 935, Fink et al. ("Fink") and Dalton. (See, Office Action at pages 12 -33).

The rejection is traversed.

Applicants submit that the rejections are in error since all of the features recited by at least each of independent claims 1, 2, 4, 6, 8, 12, 14 and 18 are not taught by an *arguendo* combination of Fink, Dalton, and Foster as the Examiner asserts.

For example, independent claim 1 recites a packet control system including "... deciding on, according to an algorithm prescribed by a routing protocol, a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network;

registering the path by the deciding to a routing table." Each of independent claims 2, 4, 6, 8, 12, 14 and 18 have a similar recitation.

By contrast, with claim 1, for example, Fink merely teaches:

> Firewall 18 defines each connection from an analysis of one or more previously received and examined packets. Firewall 18 inspects the contents of such packet or packets, and based upon the output of analysis module 24 with rulebase 26, determines whether packets from the corresponding connection should be permitted to enter and/or leave protected network 12.

(See, for example, col. 6, line 65 to col. 7, line 16).

That is, Fink merely teaches a firewall system. But, Fink does not teach "deciding on a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network according to an algorithm prescribed by a routing protocol; registering the path by the deciding as a routing table," as recited by claim 1, for example.

Nothing in the teachings of Dalton or Fink overcome theses deficiencies in the teaching of Fink..

Thus, an *arguendo* combination of FInk, Dalton, and Foster does not teach all of the features recited by at least each of independent claims 1, 2, 4, 6, 8, 12, 14 and 18.

Thus, the rejection is in error and should be withdrawn and independent claims 1, 2, 4, 6, 8, 12, 14 and 18 allowed.

* * *

Dependent claims 3, 5, 7, 9, 13, 15 and 19 inherit the patentable recitations of their respective base claims 1, 2, 4, 6, 8, 12, 14 and 18 and therefore, patentably distinguish over the cited art for at least the reason discussed above.

Thus, the rejection is in error and should be withdrawn and claims 3, 5, 7, 9, 13, 15 and 19 allowed.

* * *

Items 32-41: Rejection of claims 21-23, 25-27, and 29-31 under 35 U.S.C. §103(a)

In items 32-41 of the Office Action, the Examiner rejects claims 21-23, 25-27, and 29-31 under 35 U.S.C. 103(a) as being unpatentable over Foster, Dalton and further in view of US 6,272 522, Lin et al. ("Lin"). The rejections are traversed. (See, Office Action at page 33 -47).

The rejections are traversed. Applicants submit that the rejection is in error since all of

the features recited by at least each of independent claims 23, 27 and 31 are not taught by an arguendo combination of Foster, Dalton and Lin as the Examiner asserts.

For example, independent claim 23 recites a router control system which includes a forwarder and a router control device, wherein the router control device includes "deciding on a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network according to an algorithm prescribed by a routing protocol; registering the path by the deciding as a routing table." Each of independent claims 27 and 31 have a similar recitation.

By contrast, Lin merely teaches Regarding Lin, Lin states:

> The traffic load distribution result is then written into the shared memory space for use by the switching processors 44_1 and 44_2. The switching processors 44_1 and 44_2 exclusively perform the packet switching tasks, and do not handle any other computing tasks . . .(and) The shared memory 34 further includes a routing table 62, a configuration table 64, and a connection table 66. The routing table 62 is a database that contains the current network topology, and is accessed by the switching processor 44 in determining routing information for the received data packets.

(See, for example, col. 6, lines 4-6 and lines 55-60).

That is, Lin merely teaches a packet switching system by the switching processor. Lin does not teach "deciding on a path to be selected based on information of the network interface and routing information which the packet control device exchanges with the other packet control device in a network according to an algorithm prescribed by a routing protocol; registering the path by the deciding as a routing table."

Nothing in the teaching of Dalton or Foster overcomes the deficiencies in the teaching of Lin.

Thus, an arguendo combination of Foster, Dalton, and Lin does not teach all of the features recited by at least independent claims 23, 27, and 31. Thus, the rejection is in error and should be withdrawn and independent claims 23, 27, and 31 allowed.

* * *

Dependent claims 21-22, 25-26, and 29-30 inherit the patentable recitations of their respective base claims and therefore, patentably distinguish over the cited art for at least the reason discussed above.

Thus, the rejections are in error and should be withdrawn and claims 21-22, 25-26 and 29-30 allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: July 25, 2010

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